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PHASE	SAS
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COMMENT(S)

XEROX COPY OF SITE MAP & PHOTOGRAPHS

REF. 12

TRIP REPORT

for:

SOLUTIA / W. G. KRUMMRICH PLANT
SAUGET, ILLINOIS

ILD 980498059

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
FEDERAL SITE REMEDIATION SECTION
SITE ASSESSMENT UNIT

MARCH 2000

TRIP REPORT FOR SOLUTIA / W. G. KRUMMRICH PLANT

On May 10 - 14, 1999 the Illinois Environmental Protection Agency (Illinois EPA) conducted an Expanded Site Inspection of the Solutia - W. G. Krummrich Plant and Route 3 Drum Site, both located in the Village of Sauget, Illinois in St. Clair County. Sampling activities were conducted at these locations (Figure 1) to investigate potential groundwater and soil contamination resulting from manufacturing of chemicals and subsequent waste disposal activities. Representing the Illinois EPA were Brad Taylor, Mark Densmore, Ted Prescott, Ann Cross, and Ken Corkill from the Site Assessment Unit and Tom Miller and Gina Search from the Illinois EPA's Collinsville Field Operations Section (FOS).

The W. G. Krummrich Plant is the chemical manufacturing facility of Solutia Incorporated located in Sauget, Illinois. The facility covers certain parcels of land known as Lot B (consisting of 22.8 acres), Lot C (73.7 acres), and Lot F (71.7 acres), as shown on a Monsanto document titled Overall Property Map Showing Individual Lots & Surrounding Area (Drawn on 10-29-67). To further establish area of the W. G. Krummrich facility the IEPA utilized aerial photographs and a Tamaya Planix 5 polar planimeter. Refer to Attachment 1 for these calculations. Lots B & C are located east of Illinois Route 3 and south of Monsanto Avenue. These lots contain the manufacturing facility. Lot F is located west of Illinois Route 3 and south of Monsanto Avenue. Lot F is vacant, however, the Route 3 Drum Site is located in the southwest corner of this parcel. For specific site borders and locations of the Krummrich facility and the Route 3 Drum Site refer to Figure 2.

The W. G. Krummrich facility was acquired by Monsanto Chemical Co. as an operating facility in 1917. This facility was formerly known as the Commercial Acid Company which manufactured sulfuric acid, zinc chloride, chlorosulfonic acid and sodium sulfate. Over the course of operations at the facility, Monsanto has manufactured a wide variety of chemicals, both organic and inorganic. According to a 1992 Resource Conservation and Recovery Act (RCRA) Facility Assessment Report, the following products and wastes have been or are presently generated: spent halogenated and non-halogenated solvents, mercury contaminated wastes, chlorobenzenes, nitrochlorobenzene and benzene compounds, phenols, phosphorus, polychlorinated biphenyl (PCB) compounds, dioxins, aromatic nitro compounds, amines and nitroamines, agent orange, maleic anhydride, acids and caustics. Industrial wastes generated at the Krummrich facility throughout its operational history have been deposited within its property boundaries and in various landfill areas within the Village of Sauget. Such disposal areas have been identified through investigation and environmental sample collection over a period of approximately thirty years. Some of these locations have been grouped into what is referred to as Sauget Area 2 (consisting of Sites O, P, Q, R, and S). Analysis of environmental samples collected from each Area 2 site reveal chemicals similar to those previously or currently produced by the W. G. Krummrich Plant.

The Route 3 Drum Site, as mentioned, is situated in the southwest corner of Lot F. The site is

located west of Route 3, approximately 500 feet west-southwest of the southwest corner of the W. G Krummrich Plant. The drum site is unlined, and was utilized by Monsanto in the mid to late 1940's to bury approximately 5,000 55 gallon drums of nitrochlorobenzene, a one time disposal. In early 1985, Monsanto indicated its intention to excavate these drums, over pack them and ship them for incineration. However, initial excavations found many of the drums no longer intact and their contents had mixed with the surrounding soil. In 1986, in lieu of removing the material, Monsanto chose to have a cap designed and placed over the area. Engineering drawings indicate that the floor of this drum disposal area is approximately eight feet below surface grade. Based on information retrieved from previous groundwater investigations in the Sauget Area, average groundwater elevation is approximately three feet below the floor of this site. Fluctuations in groundwater elevations cause groundwater to come in contact with nitrochlorobenzene contaminated soil. During this investigation groundwater contamination was not detected. However, based on analysis of samples collected during previous sampling efforts conducted by a number of different entities, groundwater contamination has been documented in monitor wells adjacent to the drum disposal area.

Sample collection, at the Krummrich Plant and the Route 3 Drum Site, was completed through use of the Agencys GeoProbe, direct push equipment. Sixteen soil samples were collected from fifteen borings, along with sixteen groundwater samples from fifteen boring locations. Ten of the sample locations were common to both soil and groundwater. See Figure 3 for sample locations.

All soil and groundwater sampling was conducted in accordance with the IEPA's Quality Assurance Project Plan Standard Operating Procedures for sampling with a GeoProbe. Sampling at the Krummrich facility required the GeoProbe operator to pre-probe a sample location with a pre-probe device to penetrate the gravel pack, generally averaging two feet thick. The gravel pack and asphalt streets and parking areas are the two main surface materials employed throughout the facility. Once through the gravel pack the pre-probe was retracted from the bore hole and removed from the probe rod string. A four foot long Macro-Core sample tube with polyethylene sleeve was attached to the rod string and advanced into the soil to a depth of four feet below surface grade to obtain a soil core. The Macro-Core tube was retracted from the bore hole, the poly sleeve was removed from the Macro-Core tube and then placed on a sheet of plastic. This process was repeated to obtain cores to various depths. The sleeves were sliced open one at a time and monitored with a Toxic Vapor Analyzer (TVA), lithology was noted and any soil staining or anomalies were noted prior to moving to the next core. For this sampling event a soil sample from each boring was collected from one area within the length of the boring exhibiting the highest TVA reading or was visibly contaminated. Depths at which samples were collected and general descriptions of each location are presented in Attachment 1. Analysis of the organic, VOC, fraction was conducted by U. S. EPA's Central Regional Laboratory located in Chicago Illinois. The semi-volatile, pesticide, PCB and dioxin fractions were analyzed by Southwest Labs of Oklahoma located in Broken Arrow, Oklahoma. Analysis of the inorganic fraction was conducted by Sentinel, Incorporated located in Huntsville, Alabama. A summary of these analysis can be found in table form at the end of this report.

Groundwater samples, collected from common soil sample bore holes, were collected by inserting either a screen point sampler or millslot screen sampler into the same hole used to obtain the soil sample. Groundwater samples from locations exclusive for groundwater were collected utilizing the above mentioned method but advancing the screen point or millslot tools directly into the soil instead of placing the tools into a pre-bored hole. The screens were then, in most instances, driven to twenty feet below surface which was approximately five feet below the water table. If using a screen point sampler, the drive rods were retracted four feet to expose the screen, which allowed sampling of groundwater from sixteen to twenty feet. If using the millslot sampler, two feet of exposed slot area allowed sampling from eighteen to twenty feet. To purge and then sample, polyethylene, size 6, 1/4" I.D., 3/8" O.D. tubing was inserted through the center of the rod string to depth. A peristaltic pump was used to withdraw water. Samples were collected after clarity improved and criteria for aquifer stabilization was met. Analysis of the organic, VOC, semi-volatile, pesticide, PCB and dioxin fractions was conducted by Southwest Labs of Oklahoma located in Broken Arrow, Oklahoma. Analysis of the inorganic fraction was conducted by Sentinel, Incorporated located in Huntsville, Alabama. A summary of these analysis can be found in table form at the end of this report.

Analytical results of the May 10 - 13 sampling activity indicated levels of numerous volatile, semi-volatile and pesticide compounds in soil significantly above background within samples X102, X105, X106, X107, X108, X109, and X111. These samples were collected from locations throughout the site, not confined to a single area. Specific compounds found in concentrations significantly exceeding background levels are: benzene, toluene, chlorobenzene, 2-chlorotoluene, 4-chlorotoluene, tert-butylbenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, 1,2,4-trichlorobenzene, 1,2,3-trichlorobenzene, 4-chloroaniline, 2,4,6-trichlorophenol, and pentachlorophenol. Samples X105 and X109 were found to contain significant concentrations of Aroclor-1254 and/or Aroclor-1260. Sample X109 also contained a significant concentration of 4,4-DDT.

Inorganic analysis of the soil samples indicated several analytes significantly exceeded background levels. Specific analytes were cadmium, copper, lead, mercury, and zinc. Samples X102, and X106 through X111 were found to contain one or more of the mentioned analytes significantly exceeding background.

Analytical results of groundwater collected during the May 10 - 13 sampling event indicated levels of benzene, chlorobenzene, phenol, 2-chlorophenol, 1,4-dichlorobenzene, 1,2-dichlorobenzene, 2-nitrophenol, 2,4-dichlorophenol, 1,2,4-trichlorobenzene, 4-chloroaniline, 2,4,6-trichlorophenol, and pentachlorophenol were significantly above background within a number of samples. Samples G102, G103, G104, G106 through G110, G114, and G116 were found to contain one or more of these compounds.

Inorganic analysis of the groundwater samples indicated several analytes exceeded background levels. Specific analytes were cadmium, copper, manganese, nickel, potassium, sodium, zinc,

and cyanide. Samples G102 through G107, G110, G111, and G116 were found to contain one or more of the mentioned analytes exceeding background.

Results of the May 10 - 13 sample analysis indicate that soil and groundwater at the W. G. Krummrich facility are contaminated with chemical constituents resulting from the manufacturing process and waste disposal of chemicals at the facility. Contaminants were found, both, east of Route 3 beneath the main plant and west of Route 3 beneath Lot F.

Figures, Tables & Attachments

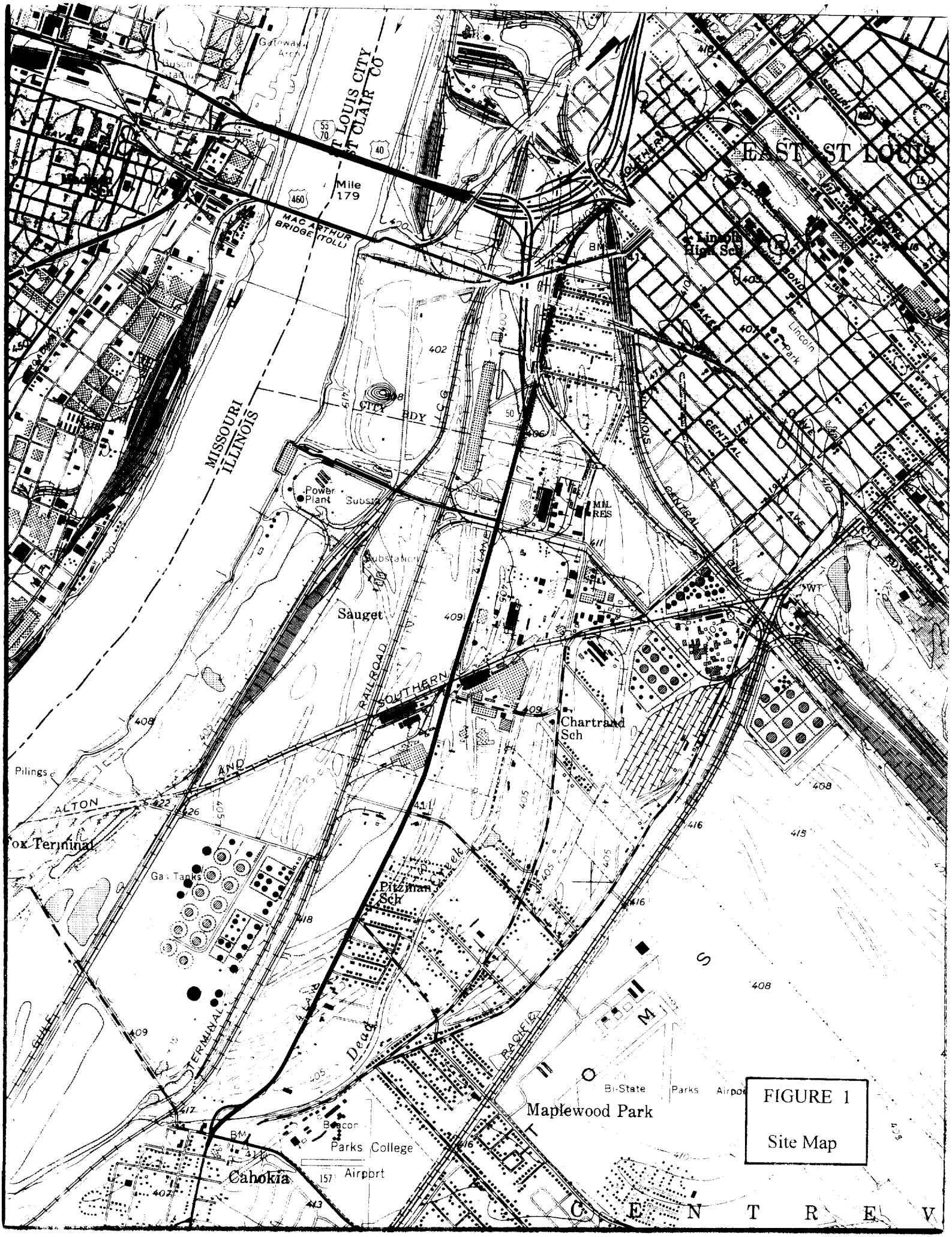

FIGURE 1

Site Map

FIGURE 2

W.G. Krummrich Facility Map

W. G. KRUMMRICH / SOLUTIA
SOIL SAMPLE SUMMARY

SAMPLING POINT	X101 ECRP0 Background	X102 ECRP1	X103 ECRP2	X104 ECRP3	X105 ECRP4	X106 ECRP5	X107 ECRP6
	5-10-99 Soil	5-11-99 Soil	5-11-99 Soil	5-11-99 Soil	5-11-99 Soil	5-12-99 Soil	5-11-99 Soil
pH (in Lab)	7.2	7.3	7.1	7.4	7.6	7.3	7.3
VOLATILES	S01	S02	S03	S04	S05	S06	S0
Vinyl Chloride	--	--	--	10 J	--	--	--
Acetone	--	67	27 JB	16 J	--	--	--
Methylene Chloride	4 J	--	--	--	--	--	--
Carbon Disulfide	--	--	--	4 J	6 J	23	6 J
1,1-Dichloroethane	--	--	--	10	--	--	--
2-Butanone	--	--	--	--	390 J	5 J	--
cis-1,2-Dichloroethene	--	--	--	27	--	--	--
Chloroform	--	5 J	--	--	5 J	--	--
Benzene	--	--	3 J	6	220000 D	14	890 D
Trichloroethene	--	--	--	7	--	--	--
4-Methyl-2-Pentanone	--	4 J	--	8 J	--	--	--
Toluene	5 J	6 J	5 J	--	1700 D	4 J	8
Tetrachloroethene	--	22	--	--	--	--	--
Chlorobenzene	--	1100	--	420 D	130 J	1300 D	94
Ethylbenzene	--	9	--	--	6700 D	--	110
Styrene	--	--	--	--	--	--	--
Xylene (total)	4 J	94	3 J	--	2800 D	3 J	14 J
Isopropylbenzene	--	5 J	--	--	1800 EJ	35	110
Bromobenzene	--	47	--	--	--	--	--
n-Propylbenzene	--	--	--	--	2700 D	--	32
2-Chlorotoluene	--	5 J	--	--	--	--	--
4-Chlorotoluene	--	5 J	--	--	--	--	--
tert-Butylbenzene	--	24	--	--	64000 D	1500 D	--
1,2,4-Trimethylbenzene	--	--	--	--	1500 D	--	--
sec-Butylbenzene	--	--	--	--	2700 D	12	16
1,3-Dichlorobenzene	--	16000 D	--	160	--	--	--
p-Isopropyltoluene	--	--	--	--	400 EJ	--	--
1,4-Dichlorobenzene	--	290000 D	--	650 D	17 J	10	6
1,2-Dichlorobenzene	--	850000 D	--	90 J	140 J	19	--
n-Butylbenzene	--	--	--	--	190 EJ	--	--
1,2,4-Trichlorobenzene	--	53000 D	--	140 J	--	--	15 J
Naphthalene	--	--	--	--	1600 J	--	--
Hexachlorobutadiene	--	10 J	--	--	--	--	--
1,2,3-Trichlorobenzene	--	17000 D	--	11 J	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
SEMIVOLATILES							
Phenol	--	--	--	--	560 J	--	--
2-Chlorophenol	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	980	--	--	120 J	--	--
1,4-Dichlorobenzene	--	10000 D	--	--	790	--	--
1,2-Dichlorobenzene	--	29000 D	24 J	--	2100	--	--
4-Methylphenol	--	--	--	--	--	--	--
Nitrobenzene	--	34 J	--	--	--	--	300 J
2-Nitrophenol	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	54 J	--	--	--	--	130 J
1,2,4-Trichlorobenzene	--	14000 D	--	--	1100	--	76 J
Naphthalene	--	72 J	--	--	740 J	--	25 J
4-Chloroaniline	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--
2-Methylnaphthalene	--	120 J	--	--	430 J	--	--
2,4,6-Trichlorophenol	--	47 J	--	--	--	--	1200
2,4,5-Trichlorophenol	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--
Acenaphthene	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--
Dibenzofuran	--	34 J	--	--	--	--	97 J
Diethylphthalate	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--
Hexachlorobenzene	--	--	--	--	--	--	--
Pentachlorophenol	--	700 J	--	--	--	--	3800 D
Phenanthrene	--	200 J	45 J	--	--	--	310 J
Anthracene	--	38 J	--	--	--	--	59 J
Di-n-butylphthalate	--	--	--	22 J	--	34 J	--
Fluoranthene	--	460	61 J	--	560 J	--	90 J
Pyrene	--	340 J	47 J	--	330 J	--	70 J
Butylbenzylphthalate	--	160 J	--	--	--	--	--
Benzo(a)anthracene	--	200 J	21 J	--	130 J	--	73 J
Chrysene	--	270 J	26 J	--	170 J	--	10 J
bis(2-Ethylhexyl)phthalate	23 BJ	140 BJ	33 BJ	--	190 BJ	22 BJ	54 BJ
Benzo(b)fluoranthene	--	360	--	--	170 J	--	58 J
Benzo(k)fluoranthene	--	120 J	22 J	--	95 J	--	--
Benzo(a)pyrene	--	210 J	--	--	110 J	--	--
Indeno(1,2,3-cd)pyrene	--	160 J	--	--	72 J	--	23 J
Dibenz(a,h)anthracene	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	190 J	--	--	87 J	--	27 J
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg

All samples were collected on-site within the property boundaries
-- Constituent analyzed for but not detected, constituent value below Contract Required Quantitation Limit (CRQL)
J Indicates an estimated value
D Analysis performed at a secondary dilution factor
E Indicates compounds whose concentrations exceed the calibration range of the instrument
P Indicates a pesticide/aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two columns The lower of the two results is reported
B The reported value is less than the CRDL but greater than the instrument detection limit (IDL)

W. G. KRUMMRICH / SOLUTIA
SOIL SAMPLE SUMMARY

SAMPLING POINT	X108 ECRP7	X109 ECRP8	X110 ECRP9	X111 ECRQ0	X112 ECRQ1	X113 ECRQ9	X114 ECRR0	X115 ECRR1	X116 ECRR2 Dup. of X114
	5-12-99	5-13-99	5-13-99	5-12-99	5-13-99	5-13-99	5-13-99	5-12-99	5-13-99
pH (in Lab)	Soil 6.9	Soil 7.4	Soil 6.8	Soil 6.9	Soil 7.4	Soil 6.8	Soil 6.9	Soil 7.4	Soil 6.8
VOLATILES	S08	S09	S10	S11	S12	S13	S14	S15	S16
Vinyl Chloride	--	--	--	--	--	--	--	--	--
Acetone	110 BJ	--	21 J	54 BJ	61 J	20 J	18 J	50 J	20 J
Methylene Chloride	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	6 J	3 J	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--
2-Butanone	18 J	--	--	40 J	6 J	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--
Benzene	--	2000000 D	4 J	96 J	--	--	--	3 J	--
Trichloroethene	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	33 J	--	--	13 J	--	--	--	--	--
Toluene	190 J	150 J	--	16000 D	4 J	4 J	4 J	4 J	--
Tetrachloroethene	10 J	--	--	--	--	--	--	--	--
Chlorobenzene	760 D	5200 J	--	28000 D	--	--	--	--	--
Ethylbenzene	13 J	--	--	530 D	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--
Xylene (total)	61 J	--	--	2060 D	4 J	3 J	--	--	--
Isopropylbenzene	--	--	--	9 J	--	--	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	30000 D	--	--	21000 D	--	--	--	--	--
4-Chlorotoluene	13000 D	--	--	11000 D	--	--	--	--	--
tert-Butylbenzene	--	--	--	49 J	--	--	--	--	--
1,2,4-Trimethylbenzene	8 J	--	--	16 J	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	1100 J	--	800 D	--	--	--	--	--
p-Isopropyltoluene	--	--	--	9 J	--	--	--	--	--
1,4-Dichlorobenzene	44 J	76000 D	--	11000 D	--	--	--	--	--
1,2-Dichlorobenzene	56 J	26000 EJ	--	1100	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	16 J	5200 J	--	8 J	--	--	--	--	--
Naphthalene	77 J	410 J	--	310 D	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	5 J	410 J	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
SEMIVOLATILES									
Phenol	--	7200	--	1200 J	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	420 J	--	850 J	--	--	--	--	--
1,4-Dichlorobenzene	110 J	29000	57 J	14000	--	--	--	170 J	--
1,2-Dichlorobenzene	110 J	8100	--	3400	--	--	--	64 J	--
4-Methylphenol	--	--	--	--	--	--	--	--	--
Nitrobenzene	--	280 J	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	1600 J	--	200 J	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	3200 J	--	820 J	--	--	--	--	--
Naphthalene	160 J	--	--	390 J	--	--	--	--	--
4-Chloroaniline	--	84000 D	250 J	5600	68 J	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	120 J	220 J	--	600 J	--	31 J	--	--	--
2,4,6-Trichlorophenol	15000 D	500 J	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	740 J	400 J	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--
Acenaphthene	120 J	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--	--	--
Dibenzofuran	350 J	--	--	--	--	21 J	--	--	--
Diethylphthalate	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	470 J	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	--	690 J	--	--	--	--	--	--	--
Pentachlorophenol	46000 D	11000	200 J	--	--	--	--	--	--
Phenanthrene	930 J	810 J	--	1600 J	--	140 J	--	--	--
Anthracene	330 J	--	--	450 J	--	28 J	--	--	--
Di-n-butylphthalate	--	--	--	210 J	26 J	41 J	22 J	37 J	21 J
Fluoranthene	750 J	610 J	120 J	1500 J	--	210 J	--	--	--
Pyrene	850 J	630 J	120 J	1300 J	--	180 J	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	370 J	340 J	80 J	650 J	--	110 J	--	--	--
Chrysene	900 J	410 J	110 J	790 J	--	130 J	--	--	--
bis(2-Ethylhexyl)phthalate	--	1600 BJ	350 BJ	420 BJ	48 BJ	95 BJ	48 BJ	52 BJ	31 BJ
Benzo(b)fluoranthene	370 J	--	100 J	480 J	--	150 J	--	--	--
Benzo(k)fluoranthene	--	--	77 J	360 J	--	88 J	--	--	--
Benzo(a)pyrene	170 J	260 J	94 J	430 J	--	110 J	--	--	--
Indeno(1,2,3-cd)pyrene	110 J	--	100 J	270 J	--	85 J	--	--	--
Dibenz(a,h)anthracene	--	--	--	130 J	--	--	--	--	--
Benzo(g,h,i)perylene	150 J	--	130 J	330 J	--	86 J	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg

All samples were collected on-site within the property boundaries.

-- Constituent analyzed for but not detected, constituent value below Contract Required Quantitation Limit (CRQL)

J Indicates an estimated value

D Analysis performed at a secondary dilution factor

E Indicates compounds whose concentrations exceed the calibration range of the instrument

P Indicates a pesticide/aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two columns. The lower of the two results is reported.

B The reported value is less than the CRDL but greater than the instrument detection limit (IDL)

W. G. KRUMMRICH/SOLUTIA
SOIL SAMPLE SUMMARY

SAMPLING POINT	X101 ECRP0 Background	X102 ECRP1	X103 ECRP2	X104 ECRP3	X105 ECRP4	X106 ECRP5	X107 ECRP6
	5-10-99	5-11-99	5-11-99	5-11-99	5-11-99	5-12-99	5-11-99
	Soil	Soil	Soil	Soil	Soil	Soil	Soil
pH (in Lab)	7.2	7.3	7.1	7.4	7.6	7.3	7.3
PESTICIDES							
alpha-BHC	--	16 PJ	--	--	--	--	11 PJ
beta-BHC	--	--	--	--	5.9 P	--	92 P
delta-BHC	--	120 P	--	--	3.6	--	90 P
gamma-BHC (Lindane)	--	--	--	--	--	--	--
Heptachlor	1.4 PJ	--	2.3 P	0.94 PJ	--	1.9 PJ	--
Aldrin	--	82 P	--	--	4.6 P	--	38
Heptachlor epoxide	--	72 P	--	4.6 P	--	0.89 PJ	40 P
Endosulfan I	--	120 P	--	--	--	--	270 P
Dieldrin	--	--	--	--	18	--	90 P
4,4'-DDE	--	100 P	1.1 PJ	--	14 P	--	--
Endrin	--	58 P	--	--	3.2 PJ	--	130 P
Endosulfan II	--	52 P	--	--	12 P	--	32 PJ
4,4'-DDD	--	230 P	--	--	14 P	--	--
Endosulfan Sulfate	--	74 P	3.4 J	--	12 P	--	83 P
4,4'-DDT	--	100	--	--	56 P	--	1600 E
Methoxychlor	--	--	--	--	--	--	410 P
Endrine ketone	--	40 P	--	--	--	--	74 P
Endrine aldehyde	--	110 P	--	--	--	--	410 P
alpha-chlordane	--	190 P	--	--	5 P	--	85 P
gamma-Chlordane	0.38 PJ	150 P	--	0.39 PJ	10 P	0.58 PJ	100 P
Aroclor-1248	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	610	--	--
Aroclor-1260	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
INORGANICS	MEBWN6	MEBWN7	MEBWN8	MEBWN9	MEBWP0	MEBWP1	MEBWP2
Aluminum	6590	14600	4810	1910	2090	4040	5580
Antimony	--	--	--	--	0.72 B	0.64 B	8 B
Arsenic	7.3	5.2	5	2.7	1.7 B	4.4	12.4
Barium	230	249	206	100	76.1	169	173
Beryllium	0.52 B	0.41 B	0.41 B	0.11 B	0.18 B	0.32 B	0.46 B
Cadmium	0.14 B	--	--	0.18 B	--	--	7.5
Calcium	18200	1820	15000	1340	5150	11200	11600
Chromium	11	36.9	8.4	5.8	4.1	7.2	11.7
Cobalt	6.8 B	5.7 B	5.3 B	1.5 B	3.9 B	4.8 B	4.9 B
Copper	14.6	30.6	10.5	6.8	9.6	37.5	75.7
Iron	12700	20700	10100	5840	5290	8700	10300
Lead	9.5	11.2	7.2	4.7	4.8	6.5	567
Magnesium	6770	2920	5730	619 B	2600	5040	5190
Manganese	331	130	218	21.8	80.8	210	189
Mercury	0.14	0.14	0.12 B	0.12	0.1 B	0.51	0.58
Nickel	17.8	21.4	13.6	3.8 B	10.7	10.7	13.6
Potassium	1320	1800	1260 B	584 B	532 B	939 B	1170 B
Selenium	--	--	--	--	--	--	--
Silver	0.83 B	1.2 B	0.72 B	0.43 B	0.35 B	0.67 B	0.93 B
Sodium	224 B	592 B	565 B	973 B	197 B	674 B	547 B
Thallium	--	--	--	--	--	--	--
Vanadium	19.5	66.8	16.1	11.4 B	7 B	13.3	16.8
Zinc	41.5	123	34.9	28.1	33.2	109	1260
Cyanide	--	0.19 B	0.31 B	0.45 B	--	--	0.15 B
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

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W. G. KRUMMRICH/SOLUTIA
SOIL SAMPLE SUMMARY

SAMPLING POINT	X108 ECRP7	X109 ECRP8	X110 ECRP9	X111 ECRQ0	X112 ECRQ1	X113 ECRQ9	X114 ECRR0	X115 ECRR1	X116 ECRR2 Dup. of X114
	5-12-99	5-13-99	5-13-99	5-12-99	5-13-99	5-13-99	5-13-99	5-12-99	5-13-99
pH (in Lab)	Soil 6.9	Soil 7.4	Soil 6.8	Soil 6.9	Soil 7.4	Soil 6.8	Soil 6.9	Soil 7.4	Soil 6.8
PESTICIDES									
alpha-BHC	26 P	--	--	--	--	--	--	--	--
beta-BHC	1400 DP	73 P	--	--	--	--	--	--	--
delta-BHC	120 P	--	--	--	--	--	--	--	--
gamma-BHC (Lindane)	--	46 P	--	--	--	--	--	--	--
Heptachlor	--	34 P	--	59 P	2 P	--	1.9 PJ	--	--
Aldrin	230 P	--	26	--	--	1.6 J	0.66 PJ	--	--
Heptachlor epoxide	150 P	120 P	26 P	32 P	--	1.8 PJ	--	--	--
Endosulfan I	130	68 P	26 P	27	--	--	--	--	--
Dieldrin	560	600 P	32 P	76 P	--	--	0.81 PJ	--	--
4,4'-DDE	120 P	430 P	17 P	100	--	1.1 PJ	--	--	--
Endrin	--	430 P	--	48 P	--	3.2 PJ	--	--	--
Endosulfan II	39 PJ	590 P	52	--	0.53 J	2.5 J	1.4 PJ	--	--
4,4'-DDD	--	--	45 DP	170 P	0.66 J	3.4 J	--	--	--
Endosulfan Sulfate	--	--	35 P	97 P	0.47 PJ	2.1 PJ	--	--	--
4,4'-DDT	330	5500 E	10 P	280 P	2.4 PJ	2.2 PJ	--	--	--
Methoxychlor	--	200 PJ	31 P	400 P	--	--	--	--	--
Endrine ketone	--	--	--	--	--	2.2 PJ	0.82 PJ	--	--
Endrine aldehyde	220	460	60 DP	200 P	--	3.8 PJ	0.99 J	--	--
alpha-chlordane	57 P	45 P	5.9 P	25 P	--	--	--	--	--
gamma-Chlordane	350 D	--	9.6 P	--	1.1 J	1.5 PJ	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	22000 P	--	--	--	--	--	--	--
Aroclor-1260	--	22000 P	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
INORGANICS	MEBWP3	MEBWP4	MEBWP5	MEBWP6	MEBWP7	MEBWT5	MEBWT6	MEBWT4	MEBWR6
Aluminum	6130	15500	6270	6530	5040	7200	3470	7290	4170
Antimony	--	1.4 B	1.2 B	3.9 B	--	1.1 B	--	0.69 B	0.52 B
Arsenic	5.3	9.4	6.8	7.6	4.8	6.3	4.7	7.4	4.6
Barium	181	246	133	122	182	211	146	225	160
Beryllium	0.46 B	1.2 B	0.41 B	0.56 B	0.4 B	0.56 B	0.33 B	0.61 B	0.33 B
Cadmium	3.4	--	3.2	1.3 B	3.2	0.61 B	--	--	--
Calcium	8320	4710	62500	74200	15300	8500	12800	20600	13000
Chromium	9.8	19.8	12.3	18.4	8.7	10.6	6.6	11.3	7.4
Cobalt	12.2 B	8.7 B	4.7 B	4.6 B	4.6 B	6.4 B	4.4 B	7.3 B	4.7 B
Copper	9.7	305	143	95.2	11.3	17.1	5.8 B	16.7	6.5
Iron	12200	20300	11300	16200	9760	12900	8330	14600	8860
Lead	8.3	126	105	234	9.1	18.3	6.7	11.4	7.3
Magnesium	5480	4000	5960	5810	5780	4100	4890	6360	5150
Manganese	108	112	169	136	225	383	180	388	193
Mercury	0.96	0.3	0.48	1.1	0.12	0.11 B	0.1 B	0.14	0.12
Nickel	24.6	37.8	35	311	12.2	16.6	11.5	18.7	12
Potassium	1400	3050	1340	1350	1360	1730	794 B	1770	956 B
Selenium	--	0.91 B	--	--	--	--	--	--	--
Silver	0.72 B	2.3 B	1.6 B	1.3 B	0.45 B	0.84 B	0.85 B	0.81 B	0.45 B
Sodium	275 B	1100 B	259 B	442 B	226 B	310 B	156 B	314 B	206 B
Thallium	--	--	--	--	--	--	--	--	--
Vanadium	16.5	36.8	17.5	20.9	15.7	20.1	12.1 B	21.6	14
Zinc	60.1	308	477	306	49.4	105	29.5	53	29.7
Cyanide	0.2 B	--	0.16 B	0.42 B	0.1 B	--	0.12 B	-	--
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

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W. G. KRUMMRICH / SOLUTIA
GROUNDWATER SAMPLES

SAMPLING POINT	G101	G102	G103	G104	G105	G106	G107	G108
	ECRR7	ECRR8	ECRR9	ECRS0	ECRS1	ECRS2	ECRS3	ECRS4
	Background							
	5-10-99	5-10-99	5-10-99	5-11-99	5-11-99	5-11-99	5-12-99	5-11-99
	Water	Water	Water	Water	Water	Water	Water	Water
pH (In Lab)	7.2	6.9	6.0	5.8	7.0	6.6	6.4	7.4
VOLATILES								
Vinyl Chloride	--	--	--	--	--	--	--	--
Methylene Chloride	5 JB	--	3 JB	64 JB	4 JB	71 JB	30	--
Acetone	--	36	--	--	--	--	--	--
1,2-Dichloroethene	--	--	25	--	--	--	--	--
Chloroform	--	19 JB	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	2 J	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--
Benzene	--	420	3 J	--	--	--	--	16
Toluene	--	--	--	--	--	--	20	--
Chlorobenzene	--	1600	14	2500	5 J	2300	80	9 J
Ethylbenzene	--	--	--	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--
Xylene (total)	--	--	--	--	--	--	11	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SEMIVOLATILES								
Phenol	--	270	--	15	--	--	--	--
2-Chlorophenol	--	280	--	59	--	15	2 J	--
1,3-Dichlorobenzene	--	10 J	12	150 DJ	--	1 J	--	--
1,4-Dichlorobenzene	--	67 J	180 D	1600 D	--	15 J	2 J	2 J
1,2-Dichlorobenzene	19	11000 D	13	3300 D	--	2 J	--	1 J
4-Methylphenol	--	23 J	--	1 J	--	--	--	--
Nitrobenzene	--	43 J	--	24	--	22	--	--
2-Nitrophenol	17	23000 D	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	3 J	270 DJ	--	--	--	--
1,2,4-Trichlorobenzene	--	260	11	1400 D	--	--	--	--
Naphthalene	--	--	--	0.9 J	--	--	7 J	--
4-Chloroaniline	--	12 J	2 J	86 DJ	--	0.7 J	--	150 D
Hexachlorobutadiene	--	--	0.8 J	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	200 DJ	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	6 J	--	--	--	--
2-Nitroaniline	--	110 J	--	--	--	--	--	--
3-Nitroaniline	--	--	--	2 J	--	--	--	--
Acenaphthene	--	--	--	--	--	--	--	--
4-Nitrophenol	--	510	--	16 J	--	--	--	--
Dibenzofuran	--	--	--	--	--	--	--	0.6 J
Diethylphthalate	--	--	0.7 BJ	1 BJ	0.5 BJ	0.6 J	--	--
Fluorene	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	0.8 J	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	12 J	170 DJ	--	0.6 J	--	--
Phenanthrene	--	--	--	--	--	--	--	0.7 J
Anthracene	--	--	--	--	--	--	--	--
Di-n-butylphthalate	--	--	0.7 J	0.8 J	--	0.7 J	--	0.7 J
Fluoranthene	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	0.6 BJ	--	2 BJ	2 BJ	1 BJ	1 BJ	1 BJ	6 BJ
Chrysene	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PESTICIDES								
alpha-BHC	--	--	--	0.062 P	--	0.024 PJ	--	
beta-BHC	--	0.8 PE	--	--	--	0.03 PJ	--	--
delta-BHC	--	--	--	--	--		--	
gamma-BHC (Lindane)		0.12 P	--	--	--	--	--	--
Heptachlor	3.1 P	--	--	0.15 P	--	--	0.038 P,	
Aldrin	--	--	--	--	--	--	--	--
Heptachlor epoxide	20 P	2.2 DP	--	--	--	--	0.067 P	--
Dieldrin	--	0.95 P	--	--	--	--	--	--
4,4'-DDE	--	1.2 DP	--	--	--	--	--	--
Endrin	20	0.26 P	--	--	--	--	--	--
Endosulfan II	--	0.69	--	0.075 PJ	--	--	--	--
4,4'-DDD	1.1 JP	--	--	0.089 PJ	--	--	--	--
Endosulfan sulfate		--	--	--	--	--	--	0.11 P
4,4'-DDT	--	0.48	--	--	--	--	--	--
Methoxychlor	52	--	--	--	--	--	--	--
Endrine ketone	15 P	0.1 P	--	--	--	--	--	--
Endrine aldehyde	--	0.34 P	--	0.12 P	--	--	--	--
alpha-Chlordane	1.5 JP	0.15 P	--	0.1	--	--	--	--
gamma-Chlordane	--	--	--	0.098 P	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
INORGANICS	MEBWP8	MEBWP9	MEBWQ0	MEBWQ1	MEBWQ2	MEBWQ3	MEBWQ4	MEBWQ5
Aluminum	27200	76700	640	21300	24900	2000	8470	5380
Antimony	--	--	--	--	--	--	--	--
Arsenic	32.2	53.6	2.9	15.8	32.5	14.7	5.6	18.4
Barium	1310	1610	61.1 B	41.1 B	1150	216	1290	315
Beryllium	2.5 B	3.8 B	--	7	1.5 B	--	--	--
Cadmium	2.1 B	4.4 B	--	44.1	2.4 B	0.83 B	1.7 B	9.4
Calcium	272000	673000	402000	454000	511000	368000	338000	40700
Chromium	36.3	94.6	3.3 B	7.5 B	38.8	52.4	45.8	24.8
Cobalt	29.2 B	50.7	2.7 B	41.5 B	31.2 B	8.1 B	6.2 B	5.7 B
Copper	57.2	114	3.3 B	19.5 B	30.1	20.4 B	67.4	18.1 B
Iron	48200	104000	22800	67600	54500	38100	84800	17600
Lead	50	114	--	9.5	37.5	15.3	149	49.5
Magnesium	76300	157000	19400	104000	84700	20300	43000	10900
Manganese	1520	11100	513	2680	3840	3990	3350	800
Mercury	0.6	0.59	0.53	0.42	0.57	0.39	1.5	0.41
Nickel	86.6	202	16.1 B	77.9	89.5	58.2	264	21.1 B
Potassium	9900	89800	46600	12700	21600	21100	18000	6160
Selenium	4.1 B	6.2	--	--	--	--	--	--
Silver	0.9 B	1.3 B	--	0.79 B	1.6 B	1.5 B	3.4 B	0.74 B
Sodium	46100	1570000	135000	190000	231000	650000	370000	88400
Thallium	--	--	--	--	--	--	--	--
Vanadium	78.1	173	--	26.9 B	56.5	9.3 B	14.2 B	15.1 B
Zinc	235	518	23.9	3080	201	305	246	1250
Cyanide	2.4 B	23.5	--	10.6	4.3 B	5.2 B	1.4 B	4.3 B
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

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GROUNDWATER SAMPLES

SAMPLING POINT	G109	G110	G111	G112	G113	G114	G115	G116	FB
	ECRS5	ECRS6	ECRQ2	ECRS7	ECRS8	ECRS9	ECRT0	ECRW0	ECRT9
								Dup of G106	Field Blank
	5-12-99	5-13-99	5-12-99	5-13-99	5-13-99	5-12-99	5-12-99	5-11-99	5-11-99
	Water	Water	Water	Water	Water	Water	Water	Water	Water
pH (in Lab)	6.7	6.4	5.8	6.7	8.2	6.7	7.0	6.0	7.2
VOLATILES									
Vinyl Chloride	--	--	--	--	3 J	--	--	--	--
Methylene Chloride	160	--	32	5 J	4 J	--	--	680	4 JB
Acetone	--	--	--	--	--	--	--	--	--
1,2-Dichloroethene	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--
Benzene	6 J	26000	--	14	1 J	2800 J	--	--	--
Toluene	--	--	--	--	--	--	--	--	--
Chlorobenzene	590	400 J	2 J	8 J	--	110000	3 J	1800	--
Ethylbenzene	--	--	--	--	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--
Xylene (total)	--	--	--	--	--	--	--	--	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SEMIVOLATILES									
Phenol	--	200 D	--	--	--	2 J	--	0.8 J	--
2-Chlorophenol	5 J	2 J	--	--	--	18	--	14	--
1,3-Dichlorobenzene	--	2 J	--	--	--	5 J	--	1 J	--
1,4-Dichlorobenzene	--	260 D	2 J	--	--	260 D	--	18	--
1,2-Dichlorobenzene	--	30	5 J	--	--	37	--	3 J	--
4-Methylphenol	--	--	--	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--	--	31	--
2-Nitrophenol	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	190	6 J	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	3 J	--	--	--	--	--	0.7 J	--
Naphthalene	--	--	--	--	--	1 J	--	--	--
4-Chloroaniline	250	--	--	--	--	--	--	0.7 J	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	2700 D	--	--	--	--	0.6 J	--	--	--
2,4,5-Trichlorophenol	57 J	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--
Acenaphthene	--	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--	--	--	--
Diethylphthalate	--	--	--	1 J	2 J	--	--	--	2 BJ
Fluorene	--	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--
Pentachlorophenol	11000 D	15 J	--	--	2 J	5 J	2 J	0.6 J	--
Phenanthrene	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	--	1 J	--	0.6 J	--	--	--	0.6 J	--
Fluoranthene	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	4 BJ	4 BJ	1 BJ	3 BJ	2 BJ	3 BJ	2 BJ	1 BJ	1 BJ
Chrysene	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PESTICIDES									
alpha-BHC	--	--	--	--	--	0.16 P	--	0.024 PJ	--
beta-BHC	--	--	--	--	--	--	--	0.039 J	--
delta-BHC	--	--	--	--	--	--	--	--	--
gamma-BHC (Lindane)	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	--	--	--	--	--	--	--
Aldrin	--	--	--	--	--	--	--	--	--
Heptachlor epoxide	--	0.079 P	0.14 P	--	--	--	--	0.072 P	--
Dieldrin	--	0.13 P	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--	--	--
Endrin	--	0.08 PJ	--	--	--	--	--	--	--
Endosulfan II	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	--	--	--	--	--	--	--	--
Endosulfan sulfate	--	--	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--	--	--
Methoxychlor	0.37 PJ	--	--	--	--	--	--	1.9 J	--
Endrine ketone	--	--	--	--	--	--	--	--	--
Endrine aldehyde	--	0.12 P	--	--	--	--	--	--	--
alpha-Chlordane	--	0.055 P	--	--	--	--	--	--	--
gamma-Chlordane	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
INORGANICS	MEBWQ6	MEBWQ7	MEBWT7	MEBWQ8	MEBWQ9	MEBWR0	MEBWR1	MEBWT9	MEBWT8
Aluminum	2580	8620	17500	6300	2500	4380	7550	260	21.5
Antimony	--	--	--	--	--	--	--	--	--
Arsenic	--	73.1	13.1	5.8 B	--	12.1	17.3	5 B	--
Barium	217	441	36.6 B	211	282	375	423	65.8 B	--
Beryllium	--	0.73 B	6.1	0.3 B	--	--	0.54 B	--	0.2 B
Cadmium	--	3.9 B	10	0.45 B	--	--	1.4 B	--	--
Calcium	274000	307000	404000	309000	150000	184000	154000	327000	252 B
Chromium	16.5	27	--	22.1	10.3	14.9	43.6	6.9 B	--
Cobalt	3.6 B	32.9 B	113	15.5 B	6.5 B	8.8 B	17.3 B	2.9 B	--
Copper	10.5 B	341	73.5	13.4 B	8 B	11.4 B	24.9 B	3.5 B	--
Iron	26800	67200	55300	15500	9820	10700	31700	7700	1850
Lead	11.3	108	--	12.6	3.8	7.6	21	2.4 B	--
Magnesium	28900	62600	65400	51400	42700	30100	30800	17800	--
Manganese	2410	7220	5480	1850	244	3080	1330	3490	7 B
Mercury	0.67	0.61	0.5	0.36	0.6	0.32	0.44	0.39	0.34
Nickel	15.2 B	109	116	39.8 B	21 B	19.4 B	63.9	22.6 B	--
Potassium	8750	11100	4090 B	7610	7180	8410	7890	17300	38.9 B
Selenium	--	--	--	--	9.2	--	--	--	--
Silver	1.2 B	3.3 B	--	--	--	0.87 B	1.6 B	--	--
Sodium	69500	158000	420000	35900	7630	124000	54100	574000	210 B
Thallium	--	--	--	--	--	--	--	--	--
Vanadium	6.8 B	94	--	16 B	6.6 B	12 B	23.4 B	--	--
Zinc	70.3	405	3190	102	79	504	381	85.3	12.4 B
Cyanide	--	2.7 B	7.5 B	1.6 B	1.8 B	--	--	--	--
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

All samples were collected on-site within the property boundaries
-- Constituent analyzed for but not detected; constituent value below Contract Required Quantitation Limit (CRQL)
J Indicates an estimated value
D Analysis performed at a secondary dilution factor
P Indicates a pesticide/aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two columns. The lower of the two results is reported
B The reported value is less than the CRDL but greater than the instrument detection limit (IDL)

SOLUTIA / W.G. KRUMMRICH PLANT
Attachment 2 SAMPLE DESCRIPTIONS

SAMPLE	DEPTH	APPEARANCE	TVA READINGS (units) PID	FID	LOCATION
X101	6.0' - 7.5'	Med-Dk tan clayey, silty med-coarse moist sand.	25	NA	NE corner of addition to Lot A.
G101	18' - 20'	Not noted	25	30	Approx. 8' north of soil sample location.
G102	16' - 20'	Greyish-yellow color. Cleared slightly prior to sampling.	1	1	East corner of Lot B.
G103	16' - 20'	Grey & slightly silty initially, clearing of silt with slight grey tint when sampled.	2	1	SW portion of Lot C, west of utility construction area.
X102	10' - 12'	Med. brown, med. grain sand with med. brown clay at 12'.	30	70	East side of Lot C, near buildings BX & BR.
G104	16' - 20'	Slightly cloudy, grey tint. Cleared to a grey tint prior to sampling.	0.95	10.35	Approx. 8' SE of sample point X102.
X103	10' - 12'	Med. tan, med. - fine sand.	-0.6	1.3	South of SE corner of Dept. 245 tote bin storage area, SE portion of Lot C.
G105	16' - 20'	Tan - med. brown in color, cleared to slightly cloudy grey prior to sampling.	NA	NA	Same bore hole as X103.
X104	9' - 11'	Mottled med. tan, med. brown, med. green, med. yellow w/some black, med. - fine sand.	0.8	950	South of new benzene tank and retention/containment structure in central portion of Lot C.
G106 & G116 (Dup of G106)	16' - 20'	Tan - med. brown in color, cleared to slightly cloudy prior to sampling.	NA	NA	Same bore hole as X104.
X105	8' - 10'	Dk. grey - greenish brown med. sand. Wet	60 - 71	300	West of old phenol dept. North of BBZ building, west of G St. near center of Lot C.
X106	10' - 12'	Black fine sand. Wet	1.24	15	NE of intersection of 3rd St. & H St. in west-central portion of Lot C
X107	6' - 8'	Med. - Lt. grey, very fine sand, moist.	NA	50	East of Oxy Chem building (BBH), west of H St. near center of Lot C
G108	16' - 20'	Slightly turbid, Dk. grey in color, cleared to slightly Lt. grey, prior to sampling.	0.5	4.6	Moved 4' NE of boring X107 due to obstruction when mill slot was advanced down X107.
X108	10' - 12'	Dk. grey, sandy, clayey silt	10	25	South of BBI building in SW portion of Lot C.
G109	16' - 20'	Med. grey in color, cleared to slightly cloudy Lt. grey, prior to sampling.	NA	NA	Same bore hole as X108.

Ambient air in bore hole

Ambient air in bore hole

Raining

SOLUTIA / W.G. KRUMMRICH PLANT
Attachment 2 SAMPLE DESCRIPTIONS (cont.)

SAMPLE	DEPTH	APPEARANCE	TVA READINGS (units) PID	FID	LOCATION
X109	8' - 9.5'	Dk. grey - black oily gravel, sand and silt.	35	120	Approx. 40 ft. NW of NW corner of BBU building in SW corner of Lot C.
G110	16' - 20'	Dk. - med. grey in color, clearing to slightly cloudy Med. grey, prior to sampling.	2.4	7.65	Same bore hole as X109.
X110	4.5' - 6.5'	Very Dk. greyish brown, clayey silt. Wet.	0.31	1.4	Approx. 40 ft. N of SW corner of BBW building, near central west side of Lot C.
G111	16' - 20'	Med. grey in color, clearing to slightly cloudy Lt. grey prior to sampling.	0.02	0.7	NE corner of Lot C.
X111	4' - 8'	Dk. grey, soft sandy silt. Wet.	2.5	600	Adjacent to west wall of Dept. 277 raw material storage area, N. of building BBB, east of H St. in NW portion of Lot C.
G107	16' - 20'	Dk. - med. grey in color, cleared to Lt. grey and slightly cloudy prior to sampling.	0.04	10 - 15	Same bore hole as X111.
X112	9' - 11'	Lt. yellowish brown very fine silty sand.	0.32	1.2	Near NW corner of Lot C.
X113	6.5' - 8'	Med. brown - greyish brown very fine silty sand. Moist.	-0.02	1.4	SE of intersection of Monsanto Ave. & Route 3, at west edge of Lot D.
G112	16' - 20'	Lt. brown in color, cleared to slightly tan, slightly cloudy, prior to sampling.	-0.06	1.7	Same bore hole as X113.
X114 & X116 (Dup of X114)	8 - 11'	Med. brown - greyish brown fine sand. Wet at 10.5'.	NA	NA	West portion (within fencing) of Route 3 Drum Site in the SW corner of Lot F.
G113	16' - 20'	Med. tan to Med. brown in color, clearing to slightly cloudy with tan tint, prior to sampling.	NA	NA	Same bore hole as X114.
X115	9' - 12'	Med. tan sandy silt, Med. tan silty clay, Med. tan - grey, Med - course sand. Very wet @ 9'.	0.25	0.65	Near NE corner of Lot F.
G114	18' - 20'	Med. tan in color, clearing to slightly cloudy w/ slight grey tint.	600 After samples were placed in sample containers	3000	Central-east portion of Lot F, approx. 15 ft. east of MW-17 cluster.
G115	16' - 20'	Med. brown in color, clearing to slightly cloudy w/slight grey tint.	0.04	0.84	NE portion of Lot F, approx. 35 ft. east of MW- 4 cluster.

Attachment 1

METHOD FOR ESTIMATING AREA OF W.G. KRUMMRICH PLANT

The area of the W.G Krummrich Plant site was calculated from an aerial photograph that best outlined the site. The photographic scale was determined by measuring equal distances on the USGS 7.5 minute Cahokia Quadrangle and on the aerial photograph. The calculation for determining scale is shown below. The scale value was rounded down to the nearest ten.

A Tamaya Planix 5 polar planimeter was used to trace the perimeter of the site on the aerial photograph. Three consecutive runs were made over each site and the lowest value was used. The lowest value was multiplied by the square of the aerial photograph scale value. The result is the area of the site in square inches.

Each site's area in square inches was divided by the square of 63,360 (the number of square inches in a square mile). This result was multiplied by 640 (the number of acres in a square mile) and by 27878400 (the number of square feet in a square mile). The calculations are shown below. Calculated by Ted Prescott, Environmental Protection Specialist III, IEPA. Date 3/9/00

CALCULATIONS:
Photo scale: (topo distance)(topo scale)/photo distance
(example: 5in X 24000/10in = 12000
The photo scale is 1 : 12000)

W.G. Krummrich Plant (incl. Lots "B", "C" & "F")
The area of the facility was established from the perimeter of the main plant (Lots "B" & "C") and Lot "F". The entire perimeter was run three times. After the final area was established, the area of Illinois Route 3 was subtracted. The Route 3 area dimensions were estimated as: 2850 feet long, 250 feet wide (2-lanes at 33 feet each, 10 ft shoulder & 50 ft Rt of way per direction).
The Rt 3 area is approximately 712500 ft^2 or 16.3 acres.

Aerial Photograph dated 9/2/68 Photo SK - 1 JJ - 257
photo scale 1:7840
$(\text{photo scale})^2 = 61465600$

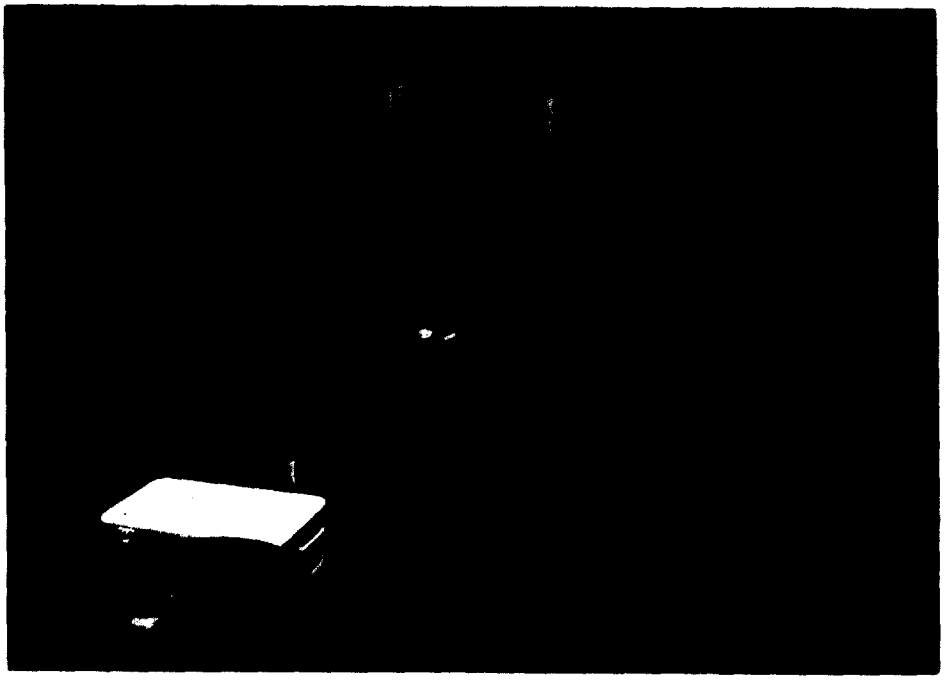
Planimeter Runs		Photo Scale		Conversions
1.	19.220038 in^2	scale	7840	63,360 in/mi
2.	19.235538 in^2	squared	61465600	4.0144×10^9 in^2/mi^2
3.	19.251038 in^2	19.220038 in^2 x 61465600		1181371168 ÷ 4.0144×10^9
lowest.	19.220038 in^2	total	1181371168	Total .294283372 mi^2
				Acres 640/mi^2

FINAL AREA
188.3 acres - 16.3 acres = **172 acres**
8204149.5 ft^2 - 712500 ft^2 = **7491649.5 ft^2**

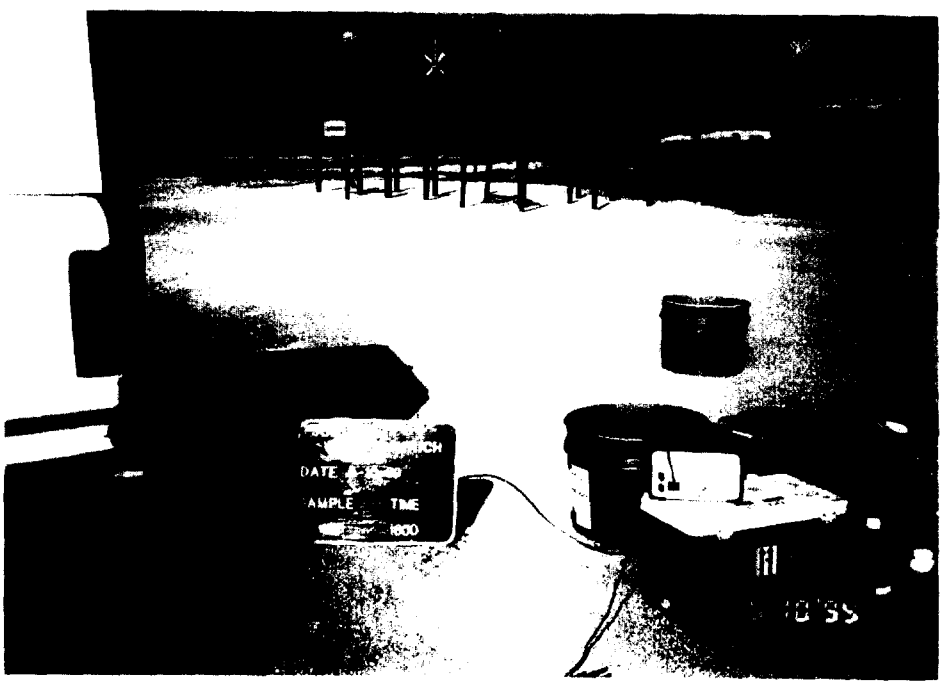
.294283372 x 640 = 188.3 acres
.294283372 x 27878400 =
8204149.5 ft^2

SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

DATE: MAY 10, 1999
TIME: 1315 & 1415
PHOTO BY: Ann Cross
SAMPLE: X101 & G101
DIRECTION: N-NE
COMMENTS: Photo taken of soil and groundwater sample location in NW corner of the addition to Lot A.

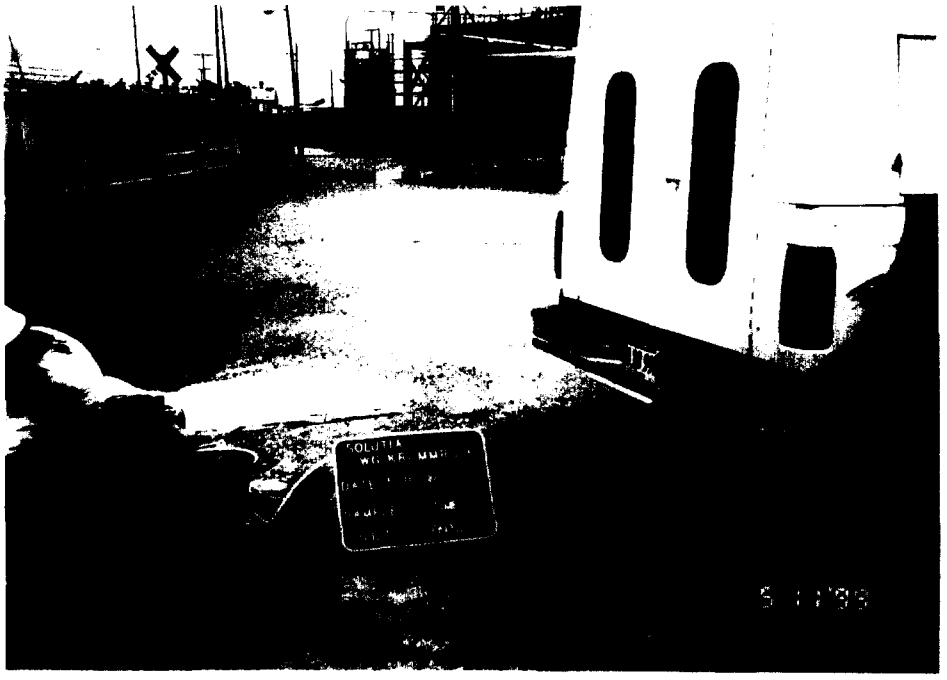


DATE: May 10, 1999
TIME: 1600
PHOTO BY: Ann Cross
SAMPLE: G102
DIRECTION: NE
COMMENTS: Photo taken of ground water sample location in east corner of Lot B.



SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

DATE: May 11, 1999
TIME: 0930
PHOTO BY: Ann Cross
SAMPLE: G103
DIRECTION: W-SW
COMMENTS: Photo taken of ground water sample location in SW portion of Lot C.



DATE: May 11, 1999
TIME: 1030
PHOTO BY: Ann Cross
SAMPLE: G104
DIRECTION: East
COMMENTS: Photo taken of ground water sample location in the BR/BX area along the east side of Lot C.

SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

DATE: May 11, 1999
TIME: 1100
PHOTO BY: Ann Cross
SAMPLE: X102
DIRECTION: West
COMMENTS: Photo taken of soil sample location in the BR/BX area along the east side of Lot C.

DATE: May 11, 1999
TIME: 1215 & 1300
PHOTO BY: Ann Cross
SAMPLE: G105 & X103
DIRECTION: South
COMMENTS: Photo taken of soil and ground water sample location south of the SE corner of Dept. 245 tote-bin storage area, SE portion of Lot C

SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

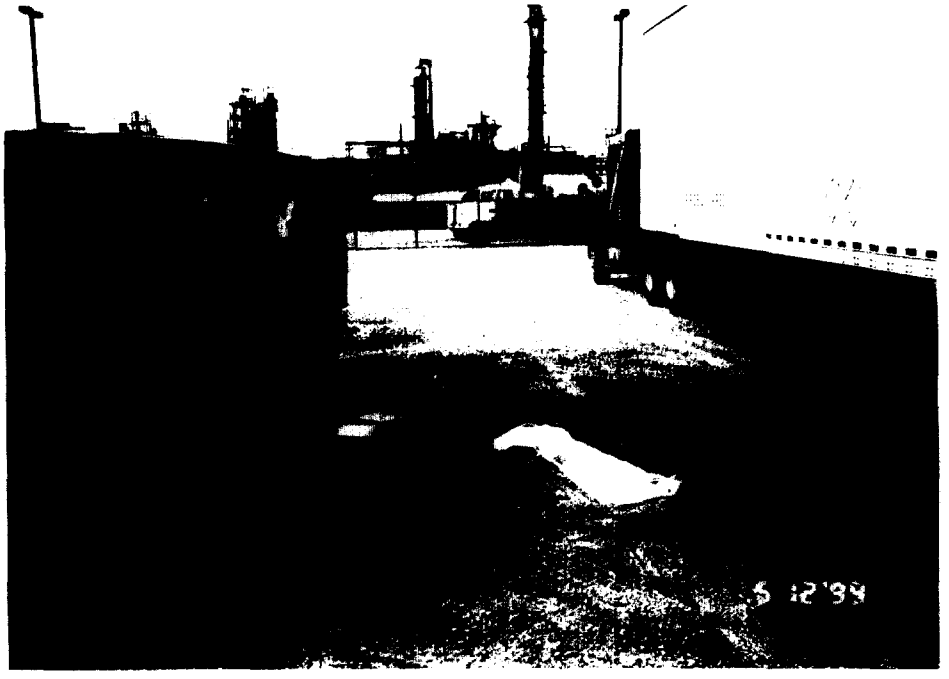
DATE: May 11, 1999
TIME: 1540
PHOTO BY: Ann Cross
SAMPLE: X105
DIRECTION: East
COMMENTS: Photo taken of soil sample location north of BBZ building, west of G St. near center of Lot C.

DATE: May 11, 1999
TIME: 1730 & 1800
PHOTO BY: Ann Cross
SAMPLE: X107 & G108
DIRECTION: East
COMMENTS: Photo taken of soil and ground water sample location adjacent to (east of) Oxy Chem building (BBH), west of H St. in Lot C.

SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

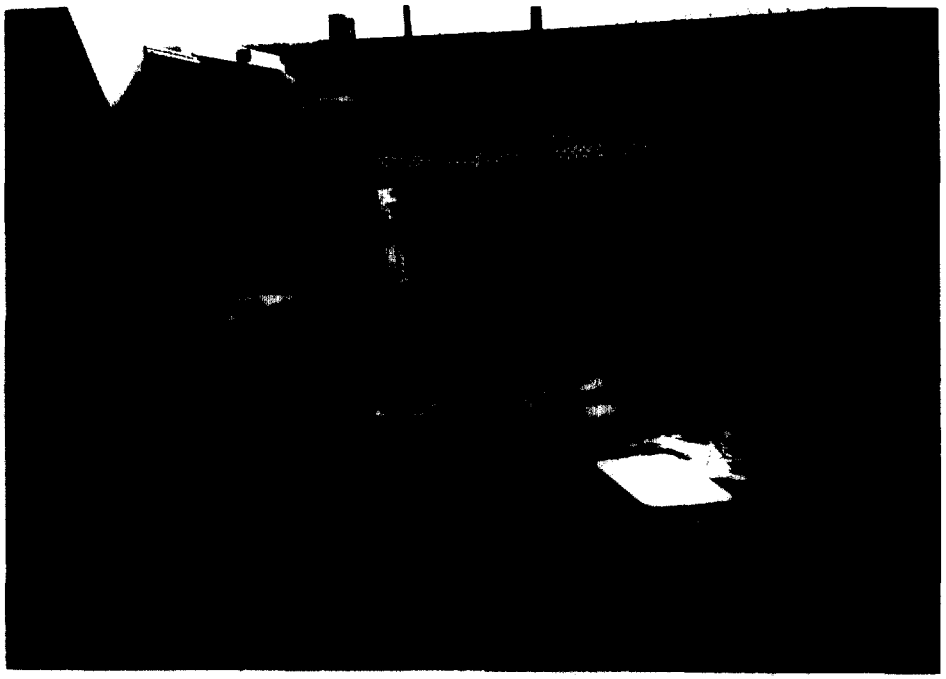
DATE: May 12, 1999
TIME: 0820 & 0840
PHOTO BY: Ann Cross
SAMPLE: X111 & G107
DIRECTION: East
COMMENTS: Photo taken of soil and ground water sample location adjacent to Dept 277 raw material storage area, north of bldg. BBB, east of H St. in NW portion of Lot C.

DATE: May 12, 1999
TIME: 0955
PHOTO BY: Ann Cross
SAMPLE: G111
DIRECTION: South
COMMENTS: Photo taken of ground water sample location in NE corner of Lot C.

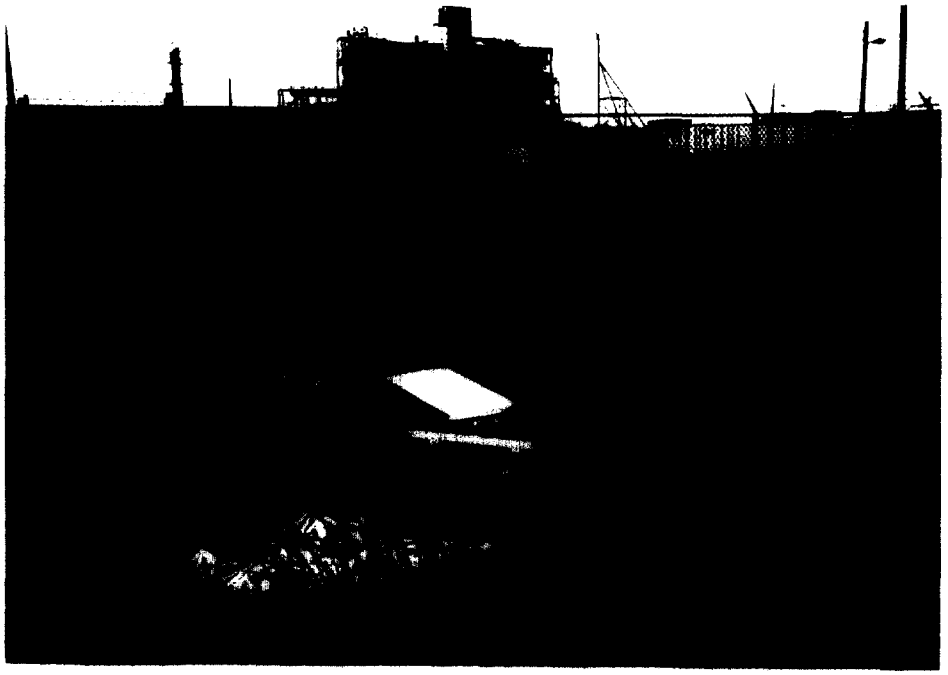


SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

DATE: Mat 12, 1999
TIME: 1100
PHOTO BY: Ann Cross
SAMPLE: G114
DIRECTION: East
COMMENTS: Photo taken of ground water sample location in central-east portion of Lot F,15 ft. east of MW-17 cluster, west of Route 3.



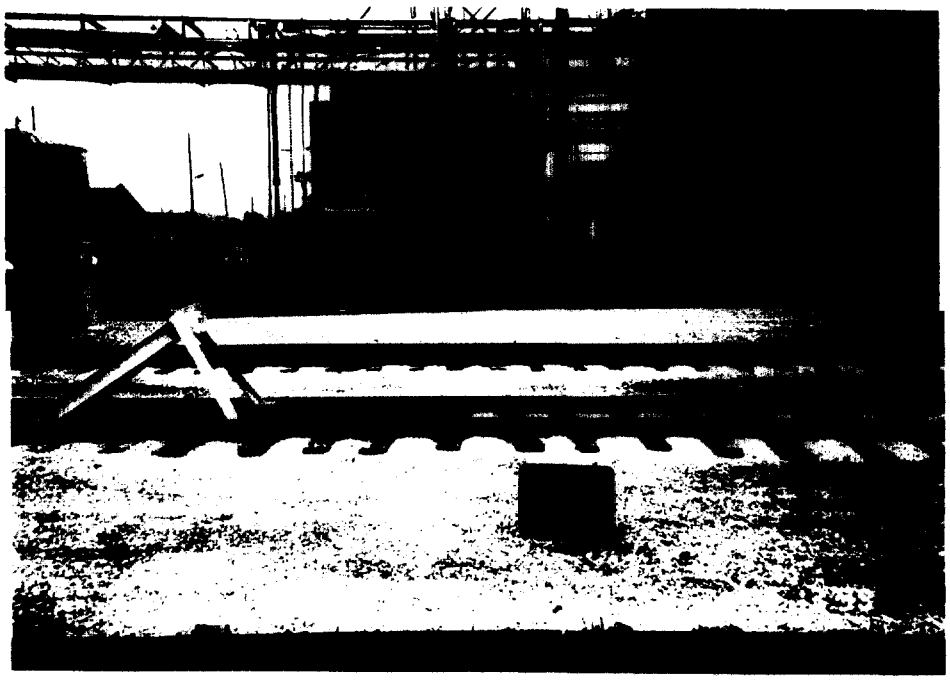
DATE: May 12, 1999
TIME: 1215
PHOTO BY: Ann Cross
SAMPLE: G115
DIRECTION: East
COMMENTS: Photo taken of ground water sample location in NE portion of Lot F, 35 ft. east of MW-16 cluster, west of Route 3.



SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

DATE: May 12, 1999
TIME: 1245
PHOTO BY: Ann Cross
SAMPLE: X115
DIRECTION: West
COMMENTS: Photo taken of soil sample location in NE corner of Lot F.

DATE: May 12, 1999
TIME: 1520
PHOTO BY: Ann Cross
SAMPLE: X106
DIRECTION: West
COMMENTS: Photo taken of soil sample location NE of the intersection of 3rd St. and H St. in Lot C.



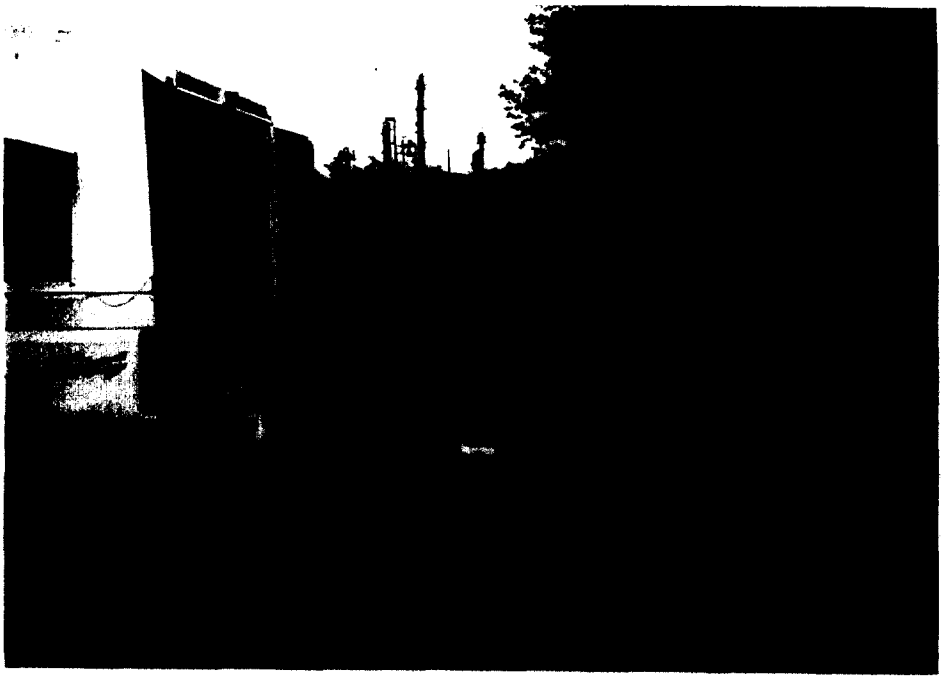
SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	COUNTY: ST. CLAIR

DATE: May 12, 1999
TIME: 1645 & 1700
PHOTO BY: Ann Cross
SAMPLE: X108 & G109
DIRECTION: East
COMMENTS: Photo taken of soil & ground water sample location south of BBI building in SW portion of Lot C.

DATE: May 13, 1999
TIME: 0940
PHOTO BY: Ann Cross
SAMPLE: X110
DIRECTION: East
COMMENTS: Photo taken of soil sample location 40ft. N. of SW corner of BBW building near central west side of Lot C.

SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	COUNTY: ST. CLAIR

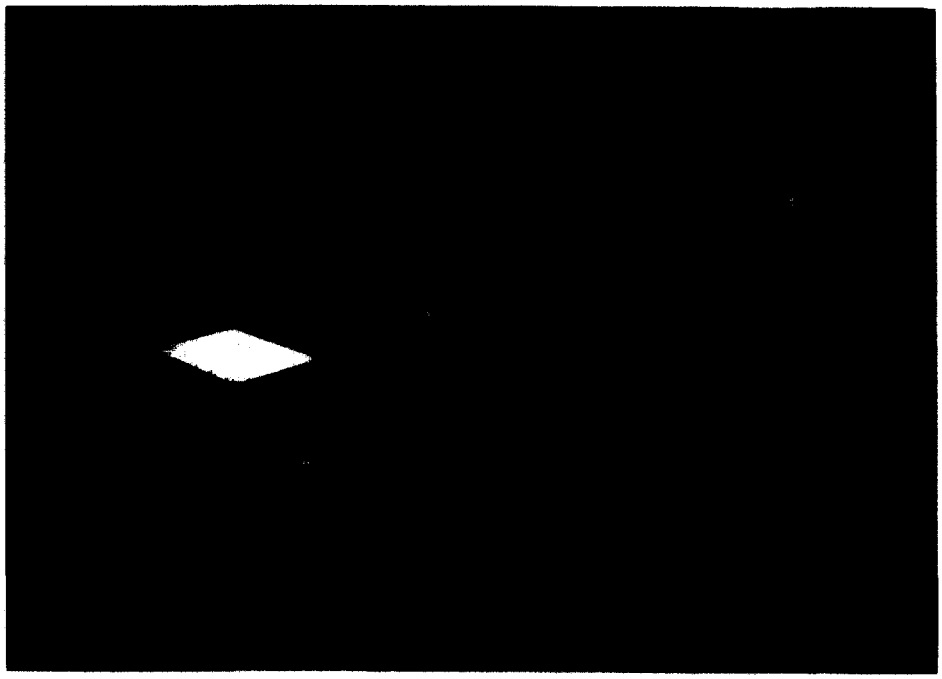
DATE: May 13, 1999
TIME: 1040
PHOTO BY: Ann Cross
SAMPLE: X112
DIRECTION: East
COMMENTS: Photo taken of soil sample location near NW corner of Lot C.



DATE: May 13, 1999
TIME: 1130 & 1205
PHOTO BY: Ann Cross
SAMPLE: X109 & G110
DIRECTION: NW
COMMENTS: Photo taken of soil and ground water sample location approx. 40 ft. NW of NW corner of BBU building in SW corner of Lot C.

SITE NAME: W. G. KRUMMRICH / SOLUTIA	
CERCLIS ID: ILD 980498059	**COUNTY:** ST. CLAIR

DATE: May 13, 1999
TIME: 1400
PHOTO BY: Ann Cross
SAMPLE: G113
DIRECTION: NW
COMMENTS: Photo taken of ground water sample location at the Route 3 Drum Site in the SW corner of Lot F.



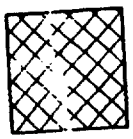
DATE: May 13, 1999
TIME: 1550 & 1610
PHOTO BY: Ann Cross
SAMPLE: X113 & G112
DIRECTION: NW
COMMENTS: Photo taken of soil and ground water sample location SE of the intersection of Monsanto Ave. & Route 3 at the west edge of Lot D.

SDMS US EPA REGION V
FORMAT- OVERSIZED - 5
IMAGERY INSERT FORM

The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	**SAUGET AREA 2**		
DOC ID #	**150767**		
DESCRIPTION OF ITEM(S)	**SITE MAP**		
REASON WHY UNSCANNABLE	**_X_ OVERSIZED**	**OR**	**___ FORMAT**
DATE OF ITEM(S)	**MAY 1999**		
NO. OF ITEMS	**1**		
PHASE	**SAS**		
PRP	**RMD - SAUGET AREA 2**		
PHASE (AR DOCUMENTS ONLY)	**___ Remedial ___ Removal ___ Deletion Docket ___ AR** **___ Original ____ Update # ___ Volume ____ of ___**		
O.U.			
LOCATION	**Box #___ Folder # ____ Subsection _____**		
COMMENT(S)			
FIGURE 3 - REF. #12			

LEGEND



Approximate Location Of Identified Solid Waste Management Unit (SWMU)

Railroad

Approximate Boundary Location Between Adjacent Properties

Groundwater sample G---
Subsurface boring X---

Illinois Environmental Protection Agency Sample Map
May 1999

Solutia Inc.
W.G. Krummrich Plant
Sauget, Illinois

FIGURE 3